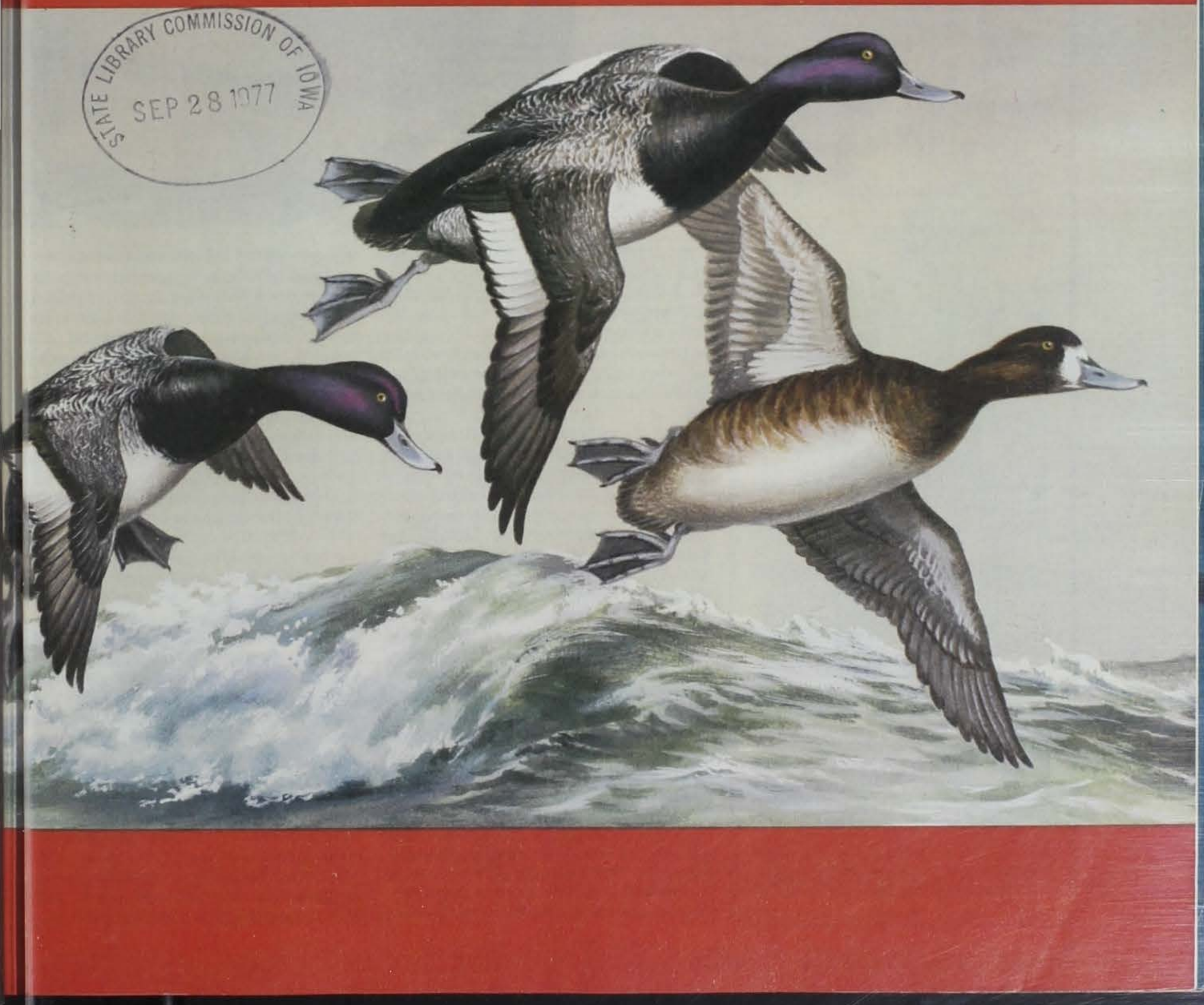
iowa conservationist

SEPTEMBER 1977



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FISHING FOR WALLEYES

By R. Runge

Photo by Sonny Satre

ACCORDING TO CREEL SURVEYS many more Iowa fishermen would prefer to catch walleyes than actually take these fine fish home to the table. But times are changing as the walleye is available closer to home for more fishermen than ever before and September is a good month to take these fish.

Since the walleye has been established in a variety of areas across the state, more and more methods of catching them have come to light. The difference in habitat often dictates the most successful technique. Fishing for walleyes in the Des Moines River near Des Moines is done differently from the fishing in the northern lakes or below the dams on the Mississippi River.

Probably the best way to catch walleyes under a variety of conditions is to use the lead-head jig. Most often the jig is dressed with live bait, either a nightcrawler or minnow. When the fisherman locates a school of feeding walleyes, the jig will take them faster and with less effort than trolling or still fishing.

Depending upon the conditions, jigs weighing 1/16 to 1/4 ounce are the best to use. In a river with a normal current, the 1/8 ounce jig should be used if that weight will get the lure down near the bottom. Remember that walleyes are on or near the bottom and to fish the river on the surface in most cases will take more marlin than walleyes. If the 1/8 or even the 1/4 ounce jig doesn't get to the bottom in the current, one or more split shot should be added. Here, however, is the trick. If you get to the bottom too fast, you'll hang up and possibly lose your jig. Constant snagging and the resultant loss of jigs scares some people away from this method of fishing in the river. This is indeed a shame since it is one technique that should be mastered if you are ever to pose a serious threat to walleyes.

The fisherman should imagine the stream bottom to be a bed of sand scattered with various sized rocks, which it probably is when you find the walleyes. The jig itself can't wait to hang up in the rocks and no matter how good you are, you'll lose one now and then. But after a few casts you should be able to balance the strength of the current to the weight of the jig and line. Casting upstream, in most cases no more than thirty or forty feet, the fisherman should feel his jig just bounding along the tops of the rocks. The current should just barely keep it from hanging up and, as mentioned before, hang up it occasionally will. When the jig makes a complete pass from upstream to downstream, the fisherman reels in and casts upstream for another pass. The feel of this good "roll" will come with practice. It should also be mentioned that this technique can be used with spinner-minnow combinations.

When the walleye takes the jig, the lure will most often stop as if it is snagged. Raising the tip of the rod a bit should tell you if it's a snag or fish. The snag will be solid and you've got other problems, but the fish may begin to move with the jig or it may just "seem not like a snag." Set the hook immediately. If you don't have him then you never will. The exception to this is when the "roll" is very slow and the fish just barely stops the jig. Sometimes it pays to just let the line die right there and see if he takes it. After a short wait, just barely pull in the slack and he may move with it. If so, nail him right away.

Jig fishing the lakes is quite similar except the fisherman must cast and reel in to bounce the jig where the current supplied the power in the river. Again the fisherman must find the fish and learn the bottom structure before he starts wasting jigs. In the spring, walleyes come in near shore to spawn and fishing off gravel bars and rocky points is the name of the game. The smaller male fish come in first and stay longer than the females and these boys get hungry just hanging around. You can just about set your watch by looking for the local walleye fishermen this time of year.

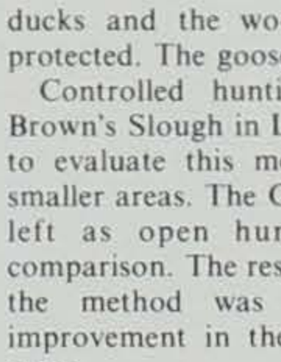
During the rest of the year the lake walleyes may be taken by trolling with spinners and minnows in deep water and often with surface lures in the weeds at night. One thing seems faily clear in the summer—walleye fishing is most often better at night. A large variety of lures is used during this time of year.

Fishing for walleyes and sauger below the dams of the Mississippi River is another sport altogether. In the spring, sometimes ten or twenty boats will jockey for position over a narrow strip of coveted territory. The popular lure over on the "Old Miss" is the sonar which is jigged up and down right under the boat. A split shot or two is used to keep it down on the bottom and the walleyes usually hook themselves when they hit the moving lure. Other fishermen use minnows while fishing from barges which are moved to the area specifically for that purpose. During the rest of the year, the fishermen pick walleyes up near the wing dams most often with lead heads, minnows and other lures.

Although spring is definitely the best time to catch walleyes in most areas, fishermen catch them year-around including some real big ones through the ice. Wherever and whenever you can go, it pays to check locally at an ICC fisheries station or local bait shops for tips on where the walleyes have been hitting. If you get there at the right time and the fish are in the mood, you're in for some fast action and some fine eating. □

LOOKIN' BACK

Thirty Years Ago



The Iowa Conservationist announced the waterfowl regulations for the coming hunting season. The daily limit was four ducks only one of which could be a wood duck. The goose limit was four only one of which could be other than a blue or snow goose. The season was thirty days long and opened at noon on the first day.

A member of the Izaak Walton League explained that too large a segment of our hunting license buyers seem to know little and to care less about true sportsmanship. As true today as it was then.

Twenty Years Ago

These pages featured the Viking Lake State Park dedication. This new area in Montgomery County was dedicated by Governor Herschel C. Loveless and comprised of 950 acres with a 150 acre lake.

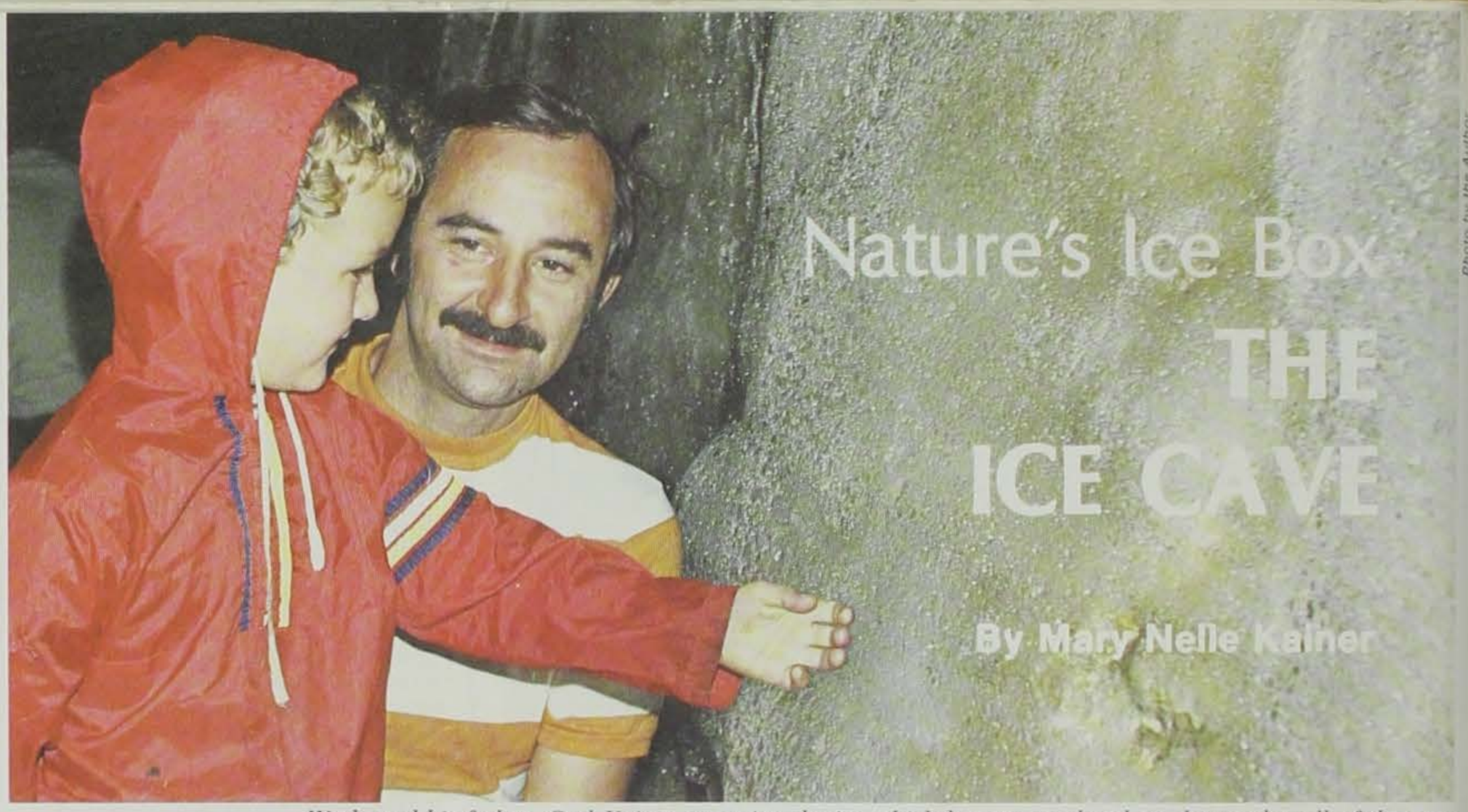
A 70 day waterfowl season was announced. The daily bag limit was four ducks and the wood duck was totally protected. The goose limit was five.

Controlled hunting was set up for Brown's Slough in Lucas County as a test to evaluate this method of hunting on smaller areas. The Colyn area nearby was left as open hunting to make the comparison. The results later showed that the method was not necessarily an improvement in the case of these small areas.

Ten Years Ago

A feature on quail traced the history of hunting the bobwhite in Iowa from the early 1900's until modern times. The first seasons set a daily bag limit of 25 birds but in 1916 the quail season was closed and remained so until 1933. This protection showed no effect on quail populations. The quail season has been slowly liberalized since that time and the 1967 bird census showed more quail than the year before.

The waterfowl season was set for 40 days using a daily bag of four ducks with no more than two mallards or one wood duck or canvasback. The goose limit was five.



Nature's Ice Box THE ICE CAVE

By Mary Nelle Kainer

Photo by the Author

Wade and his father, Carl Kainer, examine the ice which has accumulated on the north wall of the cave.

The Ice Cave at Decorah, Iowa, is the largest known glaciere in North America east of the Black Hills. Ice usually appears in the cave in March, after the coldest days of winter are past, reaches a maximum thickness of 8-10 inches on the walls in early June and does not disappear until August or September. This is in sharp contrast to other caves which maintain a constant temperature equal to the mean annual temperature of the region—about 47° in the Decorah area.

In 1860, only 12 years after the first white settlers arrived in the area, a note was published in the *Scientific American* commenting on the unusual behavior of the cave. Over the next 40 years a long series of articles in scientific publications speculated on the possible mechanisms of ice formation and brought international recognition to the cave. The series culminated in an article in 1898 in the *Scientific American Supplement* by Alois Kovarik, who proposed a mechanism which was accepted by the leading authorities of the day and which still seems to be the most reasonable explanation of the phenomenon.

The Ice Cave is located near the north bank of the Upper Iowa River, only about one-fourth mile northeast of the City Hall. It is in a relatively wild part of the 330-acre city park where deer, beaver and grouse are not uncommon.

J. Hedges/G. Knudson

THERE ARE MANY caves in the United States, but the most unusual type is the ice cave. When summertime temperatures sizzle, the ice cave stays refrigerated by several inches of ice on the cave walls. The largest ice cave between the Atlantic Ocean and the Black Hills of South Dakota is in a small park at Decorah, Iowa. It is a curiosity of nature, with the ice making the cave visitor feel cold even on a very hot day.

The ice cave is dry during the fall and early winter and does not contain ice. The ice begins forming near the entrance of the cave in the early part of each year. More and more ice forms and goes deeper into the cave. By late May, the north wall will probably be covered by several inches of ice. The ice often remains on the floor of the cave until late August, after melting slowly all summer long.

The Decorah Ice Cave was once privately owned and operated as a tourist attraction. In 1930, the cost of admission was a dime. In those days, the cave attracted visitors from all over the United States who were passing through Iowa. It was even featured in Ripley's "Believe It Or Not," and those who didn't believe came to see for themselves.

Although it may seem a mystery how the ice appears and disappears each year, there is an explanation. Many studies have been done to determine just how ice caves work, and some answers to the questions have been found.

One of the early scientific studies of the Decorah Ice Cave was done by a 17-year-old boy named Alois Kovarik who later became famous as a nuclear physicist. The young Iowa scientist was curious to find out about the cave's strange events and began observations.

Kovarik took careful measurements and watched the cave closely for many months. He finally decided that the warm air inside the cave escapes through crevices in the roof. When the warm air leaves, cold winter air comes in and cools the rocks which line the cave. The air gets so cold it causes freezing temperatures inside the cave.

The ground which freezes above during very cold weather begins thawing in late winter and early spring. The melting water seeps down into the cave and runs down the cold rocks which form the cave walls. It freezes to the walls and becomes thicker and thicker as more water seeps down.

Outside temperatures climb higher during Iowa's hot and humid summers, sometimes reaching into the 90's. The Ice Cave remains cold and dry because there is limited circulation of the air. The cold air is heavier, so it stays down in the cave longer and keeps the ice from melting for several months.

The Decorah Ice Cave may seem too rocky and too cold for anything to live there. But there is a strange little insect that has made the Ice Cave its home. The small springtail insect was discovered in 1957 to be living in this seemingly hostile environment. The springtail must like the place, though, for it is found nowhere else in the Western Hemisphere.

The Decorah Ice Cave was included in Iowa's State Preserves system in 1973. Management rules are designed to protect its unique characteristics. It is open to the public for free. All that is asked of visitors, as in all preserves of nature, is to take nothing from the cave and leave nothing inside.

The Ice Cave offers a chance to see and touch an event which happens every year. Unlike caves whose walls are formed of minerals and should not be touched, the ice caves lose their icy deposits each year and can be touched without harming the walls.

It is a fascinating feeling to step out of the blistering summer heat into a dark cave made slippery and cold by ice frozen on the walls and floor. It is a feeling of stepping into nature's own ice box. □

ALGAE, THE MINI-OXYGEN FACTORIES

By Larry Mitzner
FISHERIES BIOLOGIST

PRODUCTION continues at a smooth and even pace from sunrise to sunset without the slightest hint of failure. It's as though each algae cell were an efficient manufacturing plant where raw materials enter the structure as water and carbon dioxide and within a short time the finished products emerge as oxygen and carbohydrates. Unlike steel or automobile factories, microscopic algae cells function solely on sunlight. The process, known as photosynthesis, utilizes enzymes, chlorophyll, and light to build the compounds necessary for survival of animal life.

The assemblage of plants known as algae contains tens of thousands of species most of which are aquatic and microscopic in size, although some species form colonies and can be observed with the naked eye. Algae are found in habitats ranging from hot springs to glacial pools and comprise the greatest bulk of plant life on earth simply because 75% of the planet's surface is water.

Lake scum, moss, blooms and sometimes "allergy" are terms which describe this diverse group of plants. They comprise the smallest and simplest forms of plant life, yet they are vital to the survival of aquatic life and most importantly the fish in our lakes and streams.

The importance of photosynthesis in the aquatic realm can be appreciated by imagining what might happen to a pond which was void of algae. First, the fish would be entirely dependent on oxygen from the atmosphere which diffuses and mixes slowly with water. Even with moderate wave action this diffusion process is so slow that fish have to live within a few feet of the surface. Then during winter when the pond was sealed from the atmosphere by ice the existing oxygen would be quickly depleted resulting in a total loss of the fish and other aquatic life.

Algae communities, or phytoplankton, are distributed fairly evenly in lakes giving a greenish cast or bloom to the water. Plankton are also distributed downward from the surface thereby producing most of the oxygen used by animal life; wherever there is adequate light, oxygen is produced. In clear lakes such as West Okoboji, light penetrates quite deeply and oxygen is produced to a depth of 50 feet, while in more turbid lakes such as Red Haw, photosynthesis occurs no deeper than 12-

Photo by Bob Runge

15 feet. Oxygen production also continues during the winter, but at a somewhat reduced rate. Many species of algae thrive in cooler water and require less light to produce oxygen and some investigators have shown photosynthesis even occurs on bright moonlit nights.

Fish populations not only depend upon phytoplankton for oxygen, but many species of algae indirectly provide the main source of food for fish. Sugars and carbohydrates are the end-products of photosynthesis and are stored within the algal cells. These products are used by zooplankton (microscopic animal life) which consume great quantities of algae. Zooplankton in turn are consumed by young fish, thus the manufactured energy is transferred another step closer to the apex of the food pyramid. Ultimately the energy reaches predatory fish such as largemouth bass, northern pike and walleye.

Two groups of algae are foremost in photosynthetic production and food value. These are the grass-green algae and the diatom species in the yellow-brown algae group. Both groups contain many species which are readily consumed by young fish, zooplankton and insects. The diatoms are particularly important food in streams where they grow on rocks and snags. The presence of algae is particularly noticeable by the slipperiness of rocks and boat ramps caused by attached algal colonies excreting a gelatinous sheath about themselves. This form of algae is an important source of food for grazing insect larvae and nymphs.

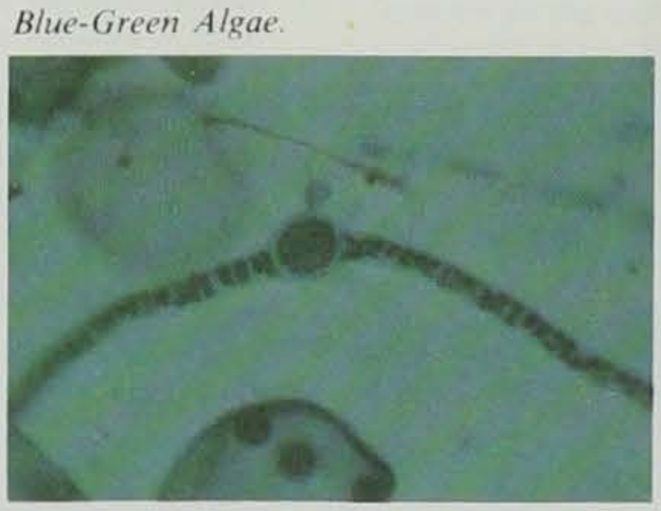
The importance of food production by photosynthesis is shown by the vast quantities produced annually within a small area. An estimate of the carbohydrate production was obtained from an investigation of the phytoplankton at Red Haw Lake near Chariton. Average production at the lake yielded about 2½ tons per surface acre of organic carbon annually.

Algal populations are undoubtedly beneficial, yet certain species can be troublesome if uncontrolled. Filters at water treatment plants become plugged with colonial forms of blue-green algae and if the problem becomes too severe the water source must be treated to reduce the algae population. At some lakes certain varieties of blue-green algae form a thick scum on the water surface and impart a foul odor resulting in water unfit for swimming. Filamentous algae, commonly called moss because of its stringly appearance, is a problem in many small lakes and ponds where algae mats cover most of the pond surface making fishing nearly impossible. Again, periodic and early treatment with chemicals will alleviate the problem.

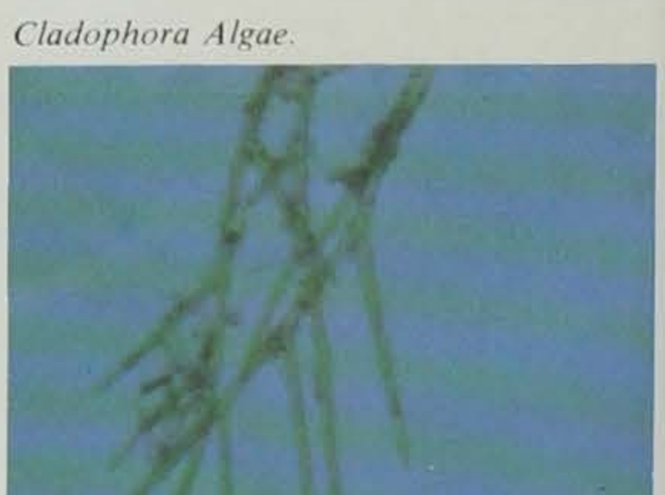
Regardless of these inconveniences, algae are symbolically the grass of the waters for without this seemingly insignificant group of plants our lakes could never provide the fish we now harvest. The production of a single microscopic plant is infinitesimal compared with the products from large industrial factories, yet when the assemblage of algae is considered as a whole the total production is beyond comprehension.

The analogy between microscopic plants and industrial factories is on the verge of science fiction, yet the similarities are striking. Simple raw products are used in the form of water and carbon dioxide. Operation of the plant is exclusively by solar radiation and most important the end-product is vital to aquatic life and beneficial to society in the form of food and recreation. □

Blue-Green Algae.



Cladophora Algae.



Diatoms.

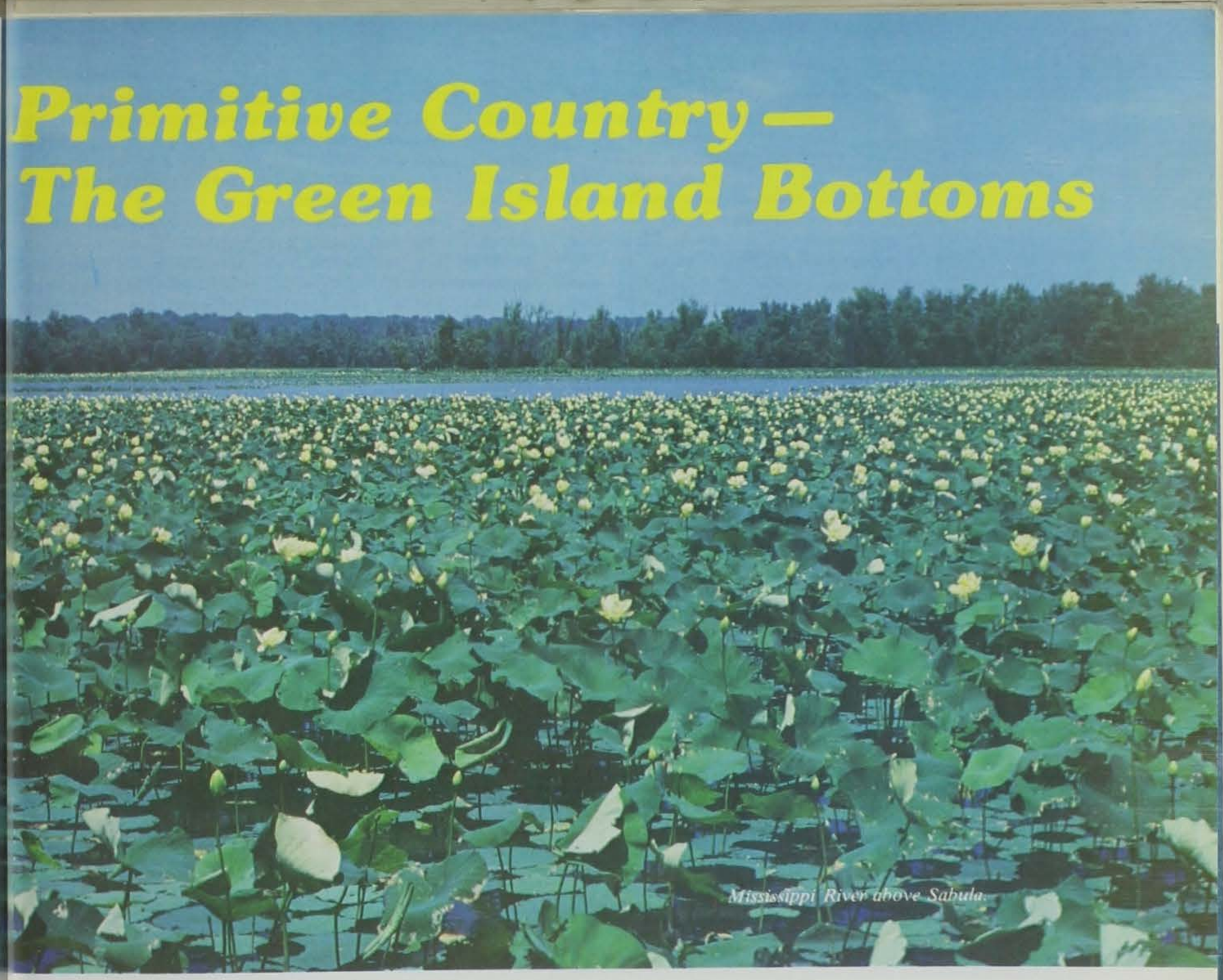
Nitella.

Spirogyra.

Volvox.

Photos by Don Kline

Primitive Country — The Green Island Bottoms



Mississippi River above Sabula.

By Dean Dalziel DISTRICT WILDLIFE BIOLOGIST

Photos by the Author

THE GREEN ISLAND BOTTOMS in Jackson County is an area often referred to by Eastern Iowa sportsmen acquainted with hunting, fishing, and trapping opportunities along the Mississippi River. Although the term is usually associated with the Iowa Conservation Commission's 3,400 acre Green Island Wildlife Management Area that lies just east of the village of Green Island, the "bottoms" actually cover an extensive area of the Mississippi River floodplain. This area stretches from just below the town of Bellevue to the town of Sabula. The land involved is approximately 17 miles in length, and up to 2 miles in width.

The "bottoms" have historically been regarded as prime fish and wildlife habitat, with early accounts telling of the vast fish and wildlife populations associated with that portion of the Mississippi River and adjoining lands. The villages of Bellevue and Sabula were both settled in the mid-1830's and many of the early inhabitants supplemented their diets with the abundant fish and game which was at hand. In the *History of Jackson County* one Sabula resident recalled that *"corn bread and pork, with a liberal supply of game, was the mainstay of many a pioneer family."* Another account states, *"In those days the bottom lands and islands around Sabula would teem with thousands of ducks and geese, and it would require no very expert marksman to kill a wagon load in one day. Game that involved the uplands was equally as plentiful, such as deer, turkey, quail, and prairie chickens."* Another early inhabitant recalled, *"as a lad of 10 or 12, often accompanying a local hunter into the bottoms where we would shoot ducks and geese and hang them up in the trees to pick up on the return trip home. There were usually many more killed than we could carry, and these were left behind."* Another man, believed to have built the first cabin in Jackson County, just south of Bellevue, was reported to have killed 75 deer the first year he lived there.

At first thought these accounts perhaps seem a bit exaggerated. However, when you consider the needs of the early pioneers and their attitude toward the fish and wildlife resource, you can readily see how abuses could have occurred. Conservation and environmental degradation were not primary concerns of the people of that era.

A project of special significance to fish and wildlife populations associated with the the Mississippi River was construction of the lock and dam system for commercial navigation. Lock and Dam 13 was officially placed in operation on May 13, 1939, impounding water behind the dam in what is commonly referred to as Pool 13. The pool's authorized water level of 583 feet above sea level creates approximately 29,103 acres of water surface behind the dam. Prior to construction of the lock and dam system, the Mississippi River consisted of a broad floodplain with a somewhat ill-defined main channel and numerous off-channel bayous and lakes. Spring floods would replenish water levels annually but summer drought conditions would later nullify the

effort. Creation of the permanent pools stabilized water levels and resulted in a form of habitat that was more favorable for fish and wildlife populations.

The Mississippi River floodplain between Bellevue and Sabula is characterized by a maze of wooded islands, waterways and backwater lakes. It is so extensive and inaccessible that hunters, fishermen and trappers constitute the principle recreational users of the area. Boaters, canoeists, and nature enthusiasts use the area to a lesser extent. Colorful and descriptive names such as Railroad Island, Indian Island, Big and Little Soupbone, and Keller's Island have been attached to the wooded islands and peninsulas. Railroad Island and Keller's Island are both quite large consisting of 520 acres and 470 acres respectively, with numerous waterways and ponds interspersed through them.

The lakes, sloughs and waterways also carry such names as Dead Lake, Flat Lake, Pin Oak Lake, Sheephead Slough, Running Slough, and Lainesville Slough. Many have local names attached to them that have a ring of familiarity to area residents, but are not listed on navigation maps.

Valuable furbearers such as muskrat, mink, raccoon, fox, and beaver inhabit the islands and waterways, providing hunters and trappers with many hours of recreation and a little supplemental income. Deer and squirrel are other game species found in plentiful supply along the river, and they too receive their share of the hunters' time and interest.

Sport fishermen utilize the backwater lakes and sloughs throughout the year, taking large numbers of crappie, bluegill, bullhead, bass, and catfish from these waters. Ice fishing is a popular pastime during the winter months, providing proponents with an opportunity to pursue their particular form of recreation in a semi-wilderness setting that offers plenty of clean air and elbow room.

For those who are interested in the non-consumptive aspects of outdoor recreation, there are millions of songbirds which pass through the area annually, many of them stopping to nest and raise their young under the ideal conditions that exist here. The area is considered one of the most important wood duck nesting habitats in the state, producing large numbers of young ducks

The C.M. St.P. & P. railroad runs along the bottom of the bluff on the west side of the floodplain. Along the edge of the railroad tracks, approximately two miles downriver from the Green Island Wildlife Management Area, stand a few houses that mark the site of the deserted village of Lainsville. The town's residents apparently worked for the railroad, and as "hard times" overtook the industry, families moved away and the population dwindled. One can imagine the many hunting, fishing, and trapping opportunities afforded Lainsville residents during the early part of the century. Many of us would consider ourselves in seventh heaven if we had the same set of conditions to contend with.

The U.S. Fish and Wildlife Services' Pleasant Creek Wildlife Area encompasses an expanse of the bottoms that extends from the mouth of the Maquoketa River to near Bellevue. This 2,370 acre portion of the Upper Mississippi River Wildlife and Fish Refuge is designated as a closed area, with no hunting or trespassing allowed during the fall waterfowl season.

As mentioned previously, fish and wildlife habitat is very abundant throughout this reach of river. The floodplain provides excellent ponds and marshes for waterfowl use and nearly every species native to the Mississippi flyway can be observed there during the spring and fall migrations. Waterfowl hunting activity is high in the area as duck and goose hunters vie for a favorite pothole or pond they consider a "hot spot." Shorebirds are also found in large numbers around the perimeter of the lakes and sloughs with various species of herons, egrets, bitterns, plovers, and sandpipers represented.

each year. River otter are also present along this stretch of the Mississippi, but due to their low population and secretive habits they are observed rather infrequently. Various raptor species frequent the area, including the sparrow hawk, marsh hawk, red-tailed, red-shouldered, broadwinged, and rough-legged hawk. Other raptors present are the great horned, barred, and screech owl. Although considered to be on the threatened or endangered list of birds, both the bald eagle and osprey are occasional to regular visitors of this vicinity.

Areas such as the Green Island Bottoms serve as a magnet to those of us with an interest in outdoor life. Whether that interest happens to be hunting, fishing, trapping, or just enjoying nature, we all seem to share a common need to seek the peace and solitude of the natural environment while pursuing a form of recreation that is pleasurable to us.

Visitors to the area may consist of the local citizenry, or they may come from the major cities and towns of the region. Whether local or non-resident, it behooves each of us to treat the area as a rare and exquisite gem, one that is present only in minute quantities. For in this fast-paced, ever-expanding world that we live in, it is important that we retain some areas in a more or less primitive condition, places we can retreat to from time to time to regain our sanity and strengthen our resolve to continue with the daily tasks that burden us.

The Green Island Bottoms fits this criteria perfectly and, with proper forethought and planning, the area will remain in a primitive condition for future generations to enjoy. □

WESTERN IOWA'S FORGOTTEN BIRD

by Neil G. Heiser
WILDLIFE BIOLOGIST

Painting by Paul Bridgford

WITH THE ARRIVAL of fall in western Iowa, a migration takes place along the Missouri River that goes nearly unnoticed by area residents and sportsmen. Referred to as a bush snipe, bog borer, or timber doodle, the American woodcock continues as it has done for countless years to journey through the Missouri River valley to wintering grounds further south.

Originally thought to be present in larger numbers only along the Mississippi River and the eastern United States, the woodcock has been "rediscovered" in western Iowa. This game bird with the long bill and erratic flight pattern has become popular with a core of sportsmen who recognize and enjoy the challenge and excitement involved in pursuing it during the fall hunting season. What kind of bird is the woodcock? Where do you find it? Why it is popular as a game bird?

The woodcock, like the snipe and sandpiper, is called a shorebird. It differs from other members of the group because it is the only bird that prefers upland instead of marsh habitat. Averaging about 10-12 inches from tip of bill to end of tail, both sexes look identical in the hand. The female, however, is somewhat the larger, averaging about 7.6 ounces; the male 6.2 ounces. Basically a brown bird, the woodcock has outstanding physical characteristics which make it fairly easy to identify in the hand or at close range. The eyes are set far back on the head, three or four distinguishable gray cross-bars mark a black crown, and the bird has a very long, conspicuous bill.

Found exclusively in eastern North America, the woodcock ranges from southeastern Canada and northern Minnesota south to the Texas gulf coast and central Florida. It breeds throughout this range except for coastal areas of several southern states and portions of Texas and Oklahoma. Wintering areas are much more restricted with a high concentration of birds in Louisiana and Mississippi.

Spring finds the woodcock undergoing a rather spectacular courtship ritual which occurs on a "singing ground." During this ritual, the male will fly several hundred feet in the air and dive toward the ground at maximum speed in a series of fast swoops. The wings make a whistling sound and he flutters to the ground close to the spot he had left only a minute or so earlier.

Although not a common occurrence, woodcocks do nest along the oxbows and accretion lands of the Missouri River Valley. Normally they would select a well-drained site varying from open grass to mixed timber. The nest can be described as a rough hollow in the ground lined with leaves or grass. Usually in April a clutch of four eggs are laid, followed by an incubation period of about 21 days.

Woodcocks are quite specialized in their feeding habits. Animal matter makes up a large percentage of their diet with earthworms being the major food item. The long, flexible bill is well adapted for probing soft soil or ground litter for animal matter.

Fall signals the southward migration of the woodcock; it is also a time that brings anticipation to sportsmen who enjoy woodcock hunting. In western Iowa migration begins in September, reaches a peak in mid-October, and is essentially over by early November. Because these birds need soft ground in which to locate food, weather plays a major role during migration and dry years appear to concentrate birds. In addition, hard freezes that make the moist ground hard can affect the rapidity of migration. Woodcocks migrate singly. However, movements in a confined valley such as the Missouri River Valley, cause migration to resemble a loose flocking.

Woodcocks migrate at night and travel closer to the ground than many birds. This move, added to the cover type they prefer, makes them somewhat secretive to the casual observer or sportsman. In western Iowa the birds are attracted to lowland timbered areas having soft, moist soils and good basal densities of willow and cottonwood. Often these areas have an open understory with little brush. Because these roosting and feeding areas are limited along the Missouri River to accretion lands, birds will concentrate in spectacular numbers if hunted at the right time. Needless to say, it can be a boom or bust situation for the hunter, depending on whether new migrants have moved down or not. *(Continued on Page 15)*

IN THE LATE 1800's and early 1900's, rail hunting was an extremely popular sport in some parts of the country, complete with hunting guides, push-poled skiffs and daily bags of a hundred or more rails. Overharvest and destruction of wetland habitat eventually led to a decrease in rail numbers and a general decline in rail hunting popularity except for the salt marshes of the Atlantic and Gulf Coasts where rail hunting continued to be a fairly popular sport.

Iowa rail populations are greatly reduced from those that existed at the turn of the century when Iowa's virgin wetlands were still an important segment of the "duck factory of North America" and whooping cranes nested in the pothole regions of northern Iowa. Since that time, thousands of acres of marshes and sloughs have been drained and converted into some of the richest farmland in the world, drastically reducing the habitat that was once available for rails and other forms of aquatic and semi-aquatic wildlife.

While there are still a small number of privately owned wetlands left, most of Iowa's rail habitat is now in public ownership. These areas serve as migrational rest stops, breeding habitat, and harvest areas for rails. Anyone who has ever seen a rail fluttering along, legs dangling, barely clearing the cattails, would find it difficult to believe a rail is capable of migrating anywhere. However, some rails travel thousands of miles annually from breeding grounds in the northern United States and Canada to wintering grounds along the southern coasts of North America and even to the islands of the West Indies.

"When the wild oats along the tidal rivers of our coast begin to turn yellow with the first touch of fall, the time for rail has come, and the high tides of September give the sportsman his first chance." — Dr. L. C. Sanford, 1903

The Rails of September

By Ronnie R. George
WILDLIFE RESEARCH BIOLOGIST

Rail hunt as photographed by Lloyd Crim.

Two species of rails, the sora and the Virginia, commonly breed in Iowa. These birds weave basket-like nests in cattails or other vegetation only a few inches above the water and lay clutches of six to twelve eggs. The young are precocial and are able to swim, run, and dive immediately after hatching. Virginia rails probe for insects and snails with their long bills. Soras use their chicken-like beaks to pick similar foods from the surface. Both species will eat duck weed *(Lemna spp.)* and soras feed heavily on wild rice and other grass seeds in the fall. Southward migration is reported to occur the night of the first frost.

Modern rail hunting in this state began in September of 1972 when Virginia rails and soras were added to Iowa's list of game birds. A few adventuresome souls took to this new sport right off, but most of Iowa's sportsmen have yet to discover the joys of tiptoeing through the bullrushes when the temperature is 90 degrees and the muck is over your boot tops. Watching your bird dog trying to point rails in water over his head is also a truly rewarding experience.

Of course there are always those who complain that anything that flys like a butterfly, eats snails, and tastes like fried coot, just couldn't be a gamebird, but other sportsmen (myself included) have found rail hunting to be an extremely enjoyable form of outdoor recreation. Rail hunting offers an excellent opportunity for early season shooting and dog work when other gamebird seasons are still weeks away and you have that irrepressible urge to do a little September bird hunting.

While I have been careful to point out the discomforts and limitations of rail hunting (in order to limit the hunting pressure at my favorite marsh), I should in fairness state that rail hunting is not always tough going, September weather is not always uncomfortably hot, and rails are sometimes found in sedges and lowland meadows where the walking is much easier than in the marsh. In addition, fried rail legs are pretty tasty despite any similarity in appearance to rubber bands wrapped around toothpicks.

If you would like to try a little rail hunting this fall, remember that a good dog is a great help in locating and retrieving birds, and small bore shotguns (20 gauge or smaller) are the order of the day. The hunting seasons for Virginia rails, soras, and snipe (a zippy bonus) are scheduled to open September 3. Shooting hours for all three species are sunrise to sunset, and daily bag limits are 15 and 8, respectively, for rails and snipe. □

Mixed bag: Virginia Rail, Snipe, and Sora.

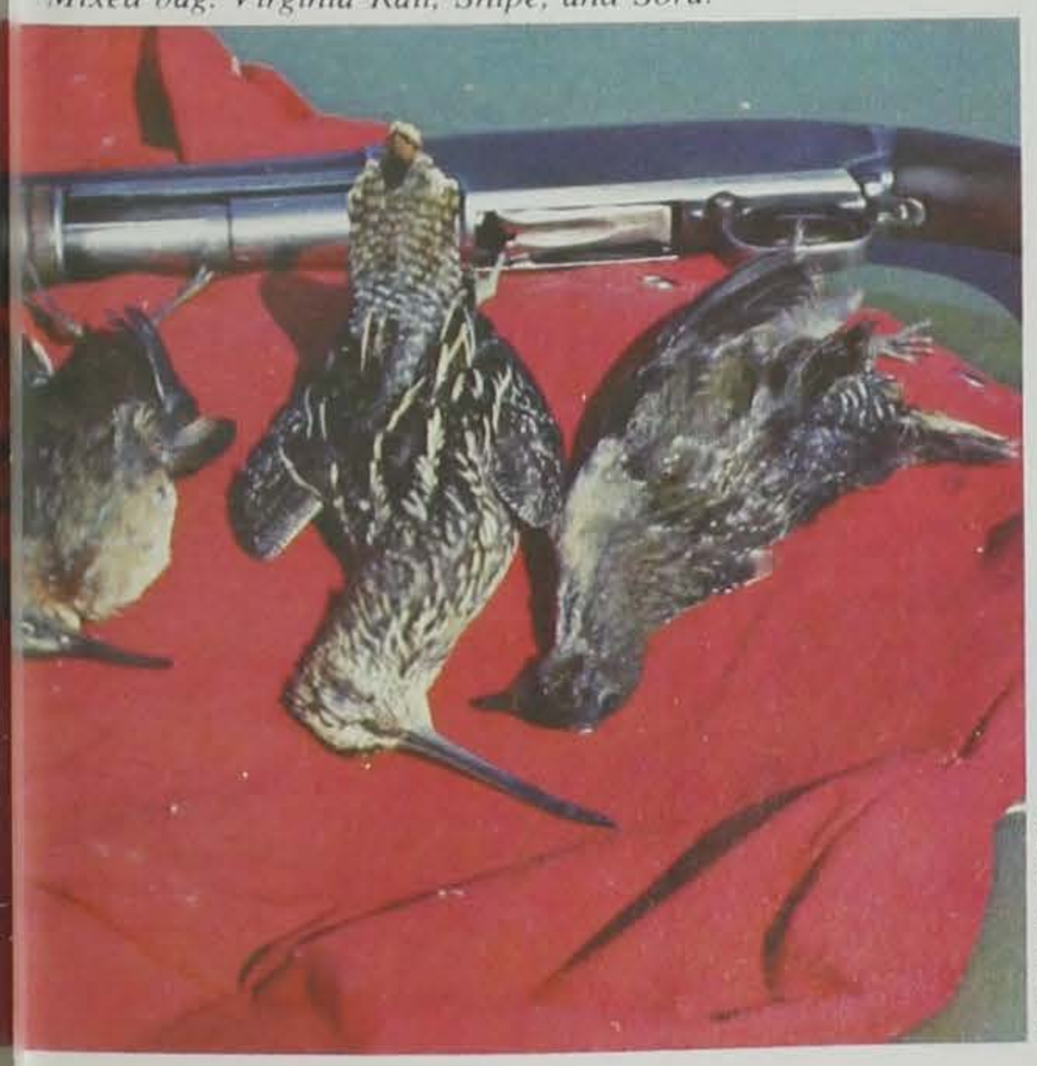


Photo by the Author

EXCELLENCE IN BOATING SAFETY
A RULE OF THE U.S. POWER SQUADRON

by James E. Horan
ASSISTANT SUPERINTENDENT OF WATERS

THE POWER SQUADRON arrived in the Quad City area in 1949. Not knowing what the Power Squadron was, locals probably wondered where the airplanes were, or if Moline had declared war on Davenport. But there was no squadron of planes and Moline and Davenport were still at peace. The U.S. Power Squadron, they soon learned, stood for excellence in boating safety. Although a private organization, members promote safe boating through voluntary public service activities.

Popular civic service activities among Power Squadrons include the public boating course, cooperative charting program, safe boating week activities and rendering assistance to anyone afloat who is disabled or in distress.

The public boating course is the most valuable service members provide. The 10-lesson course covering everything from boat handling to boat storage is invaluable for the new boater and will bring the experienced boater up to date on changes in boating safety. Well qualified instructors teach boat handling basics, seamanship, common emergencies, rules of the road, and aids to navigation. Sessions on compass basics, required equipment, river boating and trailering can benefit any boater.

The Power Squadron works in cooperation with the Iowa Conservation Commission. Persons successfully completing the squadron's course also receive a certificate from the Commission. This certificate is honored in those states such as Michigan, Wisconsin, Minnesota and Illinois with mandatory youth certification programs.

The cooperative charting program is unique among certain squadrons, but is not a widely known public service. Actually, it can result in the saving of lives and property far in excess of any other program. Basically, it amounts to checking the location and maintenance of aids to navigation.

Buoys, daymarkers, etc., are placed in locations where they will inform boaters (whether commercial or recreational) about channel conditions. Lighted buoys can go out, daymarkers can be destroyed, and buoys can drift away from where they were set. By means of a chart showing the navigation aid's proper location, Power Squadron members determine if any discrepancies exist and notify the Coast Guard accordingly.

Although other public service activities tend to focus around Safe Boating Week, some squadrons promote safe boating in their own way. The Des Moines Power Squadron, for example, recently co-sponsored a safe boating clinic. Held at the state fair grounds, the purpose of the clinic was to cover boating and safety techniques from trailering to checking equipment. The Cruising Fleet of Iowa and Conservation Commission Water Safety personnel also participated in this effort.

One public service goal adhered to by all members of this private organization is an essential part of the Power Squadron pledge taken by all members. That service is to render assistance, whenever possible, to anyone afloat who is disabled or in distress.

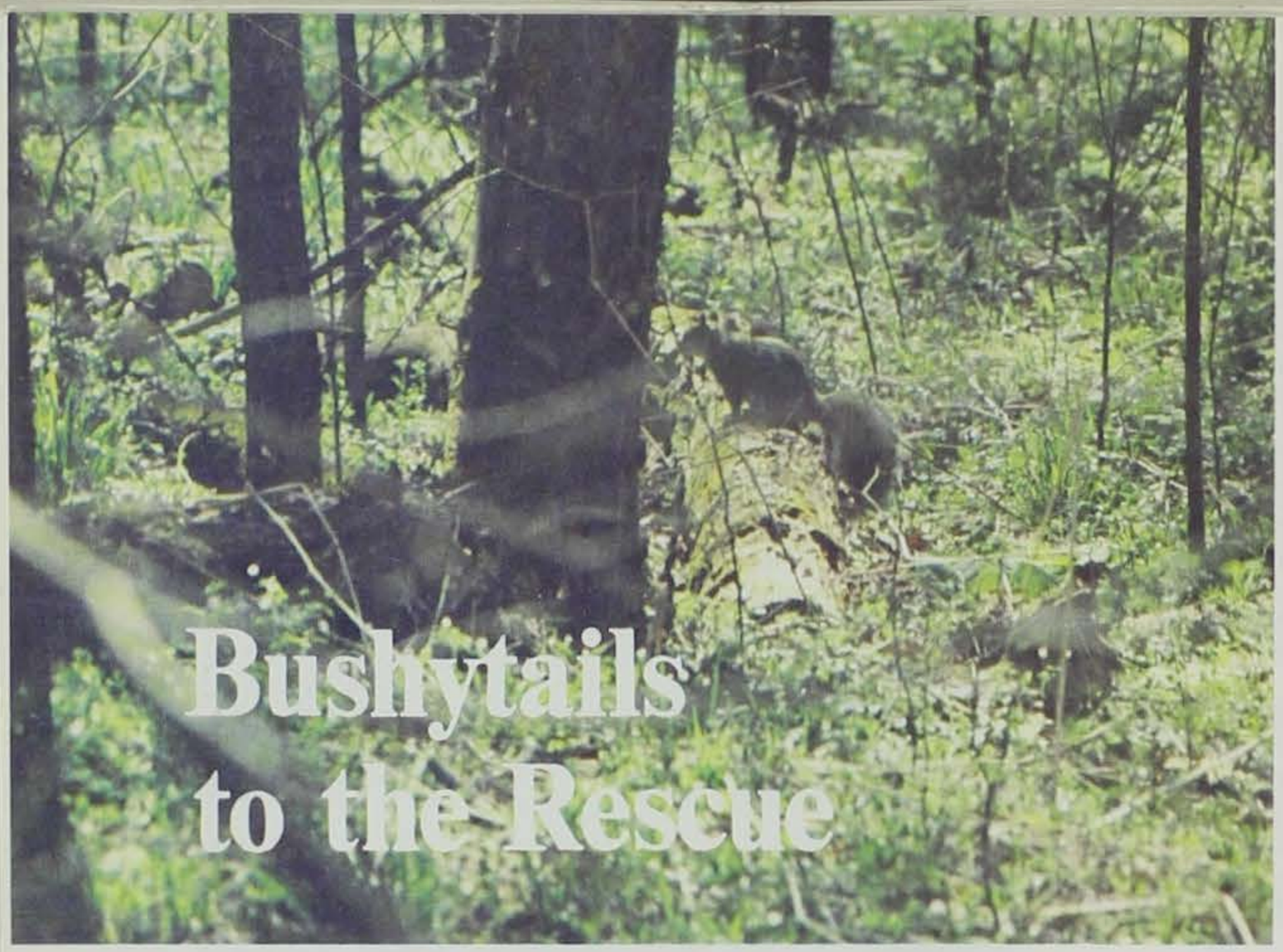
Within the squadron itself, members constantly hone and sharpen their navigational skills. Courses available for members only include advanced piloting, celestial navigation, and marine electronics. Squadron members are encouraged to compete with each other in developing skills in seamanship. This self education produces a high degree of personal safety as well as the nucleus of instructors for the public course.

Iowa now has five squadrons with a total membership of approximately 400. Waterloo has the most recently formed Power Squadron, having been a part of the Cedar Rapids Squadron until January, 1977. Today, the U.S. Power Squadron has approximately 70,000 members nationally and squadrons are found outside the continental United States as far away as Japan. As boaters everywhere have found, the Power Squadron's free safe boating classes have helped boaters have more fun safely.

Anyone interested in taking the Power Squadron public boating course should contact:

Cedar Rapids: Courses are offered at:
Iowa City, West High School
September 20, 1977, 7 p.m.

(Continued on Page 15)



Bushytails to the Rescue

By Charles Lebeda

WILDLIFE BIOLOGIST

Photos by Jerry Leonard

Phttt, phttt- were the snorting sounds that awakened me as I had dozed off under a small white oak, hunting gray squirrels in southern Iowa. I had heard a good squirrel hunter described as one who had moss on his north side, a hermit thrush had built a nest in his hair, and one day his gunstock sprouted suckers and took root. Well, that day I had been practicing to get amongst those ranks.

Most sounds heard in the woods do not deserve quick reactions. At least not if you want to watch what made the noise rather than just catch a glimpse of the noisemaker fleeing after you've frightened it away.

Slowly I turned my head until my eyes strained as they peered to the corner of their sockets. There stood a white-tailed doe at 30 feet bowing her head repeatedly as she snorted trying to catch my scent. To her I was a quiet, motionless object in her territory, which needed investigation. This intruding object perplexed her colorblind eyes as she stood stamping her forelegs into the forest litter. Still puzzled, she began circling downwind to see if this unknown figure had any scent. Finally the scent burned her nostrils as she identified it as human and bounded over the ridgetop flashing her flagtail. It had been my first hunt specifically for grays and I found them to be more elusive than fox squirrels. Nothing was in the gamebag that night but I had harvested an additional outdoor experience to be remembered some cold February day.

Squirrel hunting to me has always been a yearly tradition. I had, as many other young hunters, been introduced to sporthunting by going after those illustrious bushytails with my father on the first frosted days of September. The hunting of squirrels is probably one of the oldest traditions we have in sporthunting. It marks the advent of other opening seasons. For those people who gauge their age by hunting seasons past, it is the first outing of each new year.

Unfortunately, what usually happens after the first few squirrel hunts is that most squirrel hunters take to hunting other kinds of game as more seasons open. But these wizards of the tree-tops offer many sporting qualities which a few dedicated squirrel hunters take advantage of thoughout the season. These animals are small, quick and elusive, thus offering an exciting challenge with a small bore rifle.

An added ingredient to squirrel hunting is the overall relaxing nature of the hunt. Still hunting bushytails offers a peaceful type of hunting and for the especially stealthy person in the woods it provides a chance for a host of outdoor experiences. Oftentimes these experiences make up the majority of the "bag" taken home. These are a very important element in sporthunting.

Hunting is an American tradition and squirrel hunting exemplifies this probably more than any other game species. Ask yourself which game animal you first pursued? Chances are you mention the elusive bushytail.

So what could be more enjoyable on an Indian summer day in September than the solitude offered by pursuing one of Iowa's more elusive woodland creatures? Many a father-son relationship has been nurtured in this type of atmosphere and a deep lasting respect for Nature has thus been fostered. Appreciation of other forms of wildlife has begun as young hunters have scanned the trees for squirrels only to be entertained by a lazy raccoon positioning itself in the sun at the expense of some squirrel's leaf nest. Have you ever watched an antagonistic blue jay battle a quick tempered squirrel possessively over whose acorn or tree limb the other had intruded upon? Such experiences as to be passed by a covey of quail scratching along on the forest floor for those fall foods, or to be passed by a lone red fox searching for his favorite snack of rodents are a very justified part of the "bag."

One is not likely to sit and wait for wildlife passersby without some excuse for doing so. How many times have any of us gone into the woods for no other reason than to enjoy the things around us? Our society seems to demand that we be doing something continually and squirrel hunting offers an alibi for a mature individual to do nothing more than sit under an old oak and enjoy nature. It is lucky that the elusive bushytail comes to the rescue for those seeking an excuse to enjoy the outdoors in an especially lazy sort of way. □

Courtesy South Dakota Fish and Game Department

Decatur & Mount Ayr Wildlife Areas

By Melvin Moe
WILDLIFE BIOLOGIST

Photos by the Author

The Mount Ayr Wildlife Area

THE MOUNT AYR WILDLIFE AREA is a popular hunting area located 6 miles southwest of Mount Ayr in Ringgold County. This 1,158 acre area is a prime example of land managed to provide excellent wildlife habitat and outdoor recreation. It includes a timber tract of more than 500 acres, the 60 acre Walnut Creek Marsh, and an upland area of interspersed grasslands, brushy areas, shrub plantings, and cropfields. Thirty-six ponds of various sizes add to the diversity of the area. Field headquarters for the Mount Ayr Wildlife Unit are located here, and a Wildlife Technician resides on the area.

No matter what your hunting preference, the Mount Ayr Wildlife Area has something to offer. It is probably best known for its quail and rabbit hunting, but the diverse upland areas also offer good pheasant hunting. The timbered areas provide excellent deer and squirrel hunting, and duck hunters frequently have good results on the marsh. Hunting pressure on the area is quite heavy at times, but late season and weekday hunting is often light.

Hunting is but one of the many recreational activities to be found on the area. Fishermen often take good catches of bass, bluegill, catfish, and crappie from the marsh and several of the ponds. Miles of trails make this a favorite area for hikers and trail riders. The diverse plant and animal life on the area, including many native prairie species, make this an excellent site for nature study. Bird life is abundant, and birdwatching is especially enjoyable in the spring when the marsh receives heavy use by waterfowl and shorebirds.

This area has not always had the fine wildlife habitat it has today. When the land was purchased by the State in the 1940's, much of it was described as "rundown and gullied farmland, practically devoid of vegetation." The transformation of this wornout land into a prime outdoor recreational area is a good example of applied wildlife management and soil conservation.

Efforts to restore the productivity of the area were initiated soon after acquisition. This work was financed by the sportsmen of Iowa through the use of hunting license revenues and federal aid funds derived from an excise tax on sporting arms and ammunition. The money was put to good use. By 1948, 36 ponds had already been constructed. The budget for that year called for the planting of 24,600 feet of gullies, and seeding 160 acres to grass and legumes. Work has continued during the ensuing years, including the construction of the Walnut Creek Marsh in the late fifties.

Development of the area is virtually complete, and present management practices are aimed at maintaining prime wildlife habitat. Wildlife food is provided by small cropfields that are scattered over the area. Most of these fields are farmed by a neighboring farmer through a cooperative farming agreement, while a few smaller food plots are maintained by Conservation Commission personnel. Many of the grasslands on the area are now dominated by native prairie species, and these areas are maintained as nesting cover through a program of controlled burning and mowing. If these areas where left idle with no burning or mowing, their value as nesting cover would soon be destroyed by brush invasion and an excessive buildup of a litter of dead vegetation.

Walnut Creek Marsh was partially drained in 1974 and all fish were removed to eliminate an overpopulation of carp. This has resulted in revegetation of the marsh and increased use by waterfowl. The marsh has been restocked with fish, and it should provide good fishing for several years.

If you enjoy a natural outdoor environment, I think you will like the Mount Ayr Wildlife Area. If you visit it once, chances are that you will want to return.

Walnut Creek Marsh, Mt. Ayr Wildlife area.

The Decatur Wildlife Area

ONE OF IOWA'S NEWEST public hunting areas is the Decatur Wildlife Area, located 5 miles east of the town of Grand River in Decatur County.

Nearly 1100 acres in size, this area has a lot to offer the hunter. Seven hundred acres of timber support populations of deer and squirrels, while the remaining area is a mixture of brush, grassland, and cropland that provides habitat for pheasants, quail, and rabbits. Hunting opportunities for all species should increase as habitat is improved through management practices now being applied. Hopefully, this area will also support a wild turkey population in the future.

Management activities now underway are aimed at creating the diversity of cover most favorable for maximum wildlife production. Cropping agreements have been made with farmers, whereby some of the cropground is being seeded to grass and legumes to provide wildlife cover. Mowing is being used to control brush on some of the grassland areas so that they can be maintained as nesting cover. Parking lots are being constructed, foot trails are being maintained and improved, and interior fences are being removed to improve access for the public.

Hunters are not the only ones to benefit from the development of the area. Several miles of trails (closed to all motorized travel) run through the timbered areas, making this an ideal site for hiking, horseback riding, and back packing. when snowfall is adequate, this should be a good area for snowshoeing and cross-country skiing. The diversity of plant and animal life found here provides good opportunities for nature study, nature photography, bird watching, and similar activities.

No camping or picnicing facilities are provided, and no drinking water is available. For those who like to rough it, however, primitive camping and picnicing are allowed. Just remember not to litter. Take your trash with you and keep the area neat for the next visitor.

The Decatur Wildlife Area even contains the site of a ghost town. A railroad once passed through the property and adjacent to the railroad was a settlement known as DeKalb. It was founded by a doctor by the name of DeKalb who moved here from Virginia following the Civil War. He built a large, mansion-type house on the site and a settlement grew up around it. The settlement consisted of at least two additional houses, a depot, a store, post office and stockyards. Over the years, the railroad has been abandoned, the DeKalb family has moved away, and the buildings have been removed. All that remains to mark the site are a few majestic pine trees which were planted in the front yard of the mansion.

This area is located one and one-half miles west of the Grand River Exit of Interstate 35. If you are traveling by this way, why not stop and pay the area a visit? I think you will be glad you did. □

Beaver Pond, Decatur Wildlife Area.

CLASSROOM CORNER

by Robert Rye

ADMINISTRATOR, CONSERVATION EDUCATION CENTER

WHAT AN IOWA FOREST IS to one person may merely be a part of what another person sees. When groups at the Conservation Education Center start a class on forestry, the first problem is to explain what forests there are in Iowa. Each person has his own idea of what a forest is. Some think of miles of trees without an interruption; others of areas where clear cutting occurs (the removal of all trees in an area); and still others think of areas where selective cutting (the removal of scarred, crooked or crowded trees) is used to raise only select hard wood trees.

Ken Formanek

Coloration that the trees present in fall is another thought that comes rapidly to mind. It is the coincidence of colors appearing about the time we normally expect frost that causes people to give credit to frost. Actually, a hard frost results in a very rapid change causing death in vegetation without an opportunity to display the beautiful array of colors.

The green pigment in the leaves produces sugars and starch. The other varicolored pigments are present during the vigorous growing season but are hidden in most plants. As the season progresses, the growth of the green pigment slows and eventually this pigment breaks down with cooler temperatures. This allows the other pigments to show.

Forests are filled with many interesting wildlife specimens. One of these is the snag or dead tree. It is often overlooked for its value as wildlife habitat. In fact, many view it as a waste of space or something useless in the forest. This snag goes through a process of decomposition which may take 25 to 30 years, depending upon the tree size, species and climate.

The dead or dying trees provide nesting cover for 40 to 50 different animals. Wood ducks, woodpeckers, wrens and bluebirds are a few who will be looking to see which trees survive the fall and winter. One good thing can be said of the dutch elm disease. There now is a high number of birds at the Center and adjacent Springbrook Park. To these birds, elm snags become a element of survival.

These trees can also become an active part of a conservation education class. A class that occurs at the Center involves the use of tags. These aren't necessarily tags which identify a type or species of tree, but are used to locate the home of an animal or other object. Other tags have a color, usually a sample of the color is taped to a tag which the person must match to something in the forest. Each child or group of children may be given a tag with a question such as, "find an object that is __ years old." Trees or tree limbs are usually used for this event. All of these examples can find their answer at the snag.

Another tag activity involves tags with only numbers on them. The groups of students are given these along with about 20 yards of string. The students are instructed to set up a nature trail with the same number of stops or markers as they have tags. They can be given a site such as a dead tree. They must include a dead tree in their trail.

They may also use the lawn as their trail site and be limited to crawling on their knees. In this activity the entire scope of size is changed. The ant hill, twig collection or dandelion patch becomes a large event to be pointed out or tagged along their 20 yard nature trail.

These activities along with fall colors and a few dead or dying trees allow a person to enlarge on what nature can provide in fall. What an Iowa forest is to one person may merely be a part of what is really there.

Warden's diary

by Rex Emerson

LAW ENFORCEMENT SUPERVISOR

I STOPPED IN TO HAVE a cup of coffee with the old man who lives down by the river. His wife's brother had been complaining about income taxes being too high. The old man told him that he was just lucky he didn't have to pay income tax on what he thought he was worth.

The old man asked me what the campers thought of the new State Park system of limiting the number of camp sites this past summer. Well, I'm not with the Parks Department, so I can only offer my own opinion, and also the results of my own very unofficial surveys. (An unofficial survey is talking to a camper while checking his fishing license.)

The campers liked the plan of a limited number of camping spaces very much. Why wouldn't they? The ones who were surveyed were successful in getting there early enough to get a camping spot. The poor guy who got turned away didn't get a chance to answer that question.

After I left the old man's place I thought more about campers and some of the little known facts about camping. During the summer months, campers are as thick as flies at a watermelon feed, with only a limited number of places to land. I am sure that during the Memorial Day weekend and the Fourth of July weekend several hundred of them had to keep driving all day, looking for a place to camp. But, they no doubt had fun.

By this time I imagine you non-campers are asking, *"Just who are these 'great outdoors' people who race every weekend for a spot in the hot sun?"* (If you hadn't asked, my time interviewing one average camper would have been wasted.)

The average Joe Camper lives in an urban area, has a spacious yard and a nice home with central air conditioning. He has a wife (who didn't know about his crazy camping ideas when she married him) and two children—a boy aged ten and a girl aged eight. Oh, yes, he also has a dog, age and origin unknown.

There are about as many different types of portable shelters these campers drag around to campgrounds as there are campers. They range all the way from the very small tent to large self-contained trailers and motor homes.

Our average Joe Camper that I talked to has a sixteen foot trailer. He will admit to $3000 worth of equipment. He goes camping three weekends each month during the summer. One weekend per month is wasted visiting the wife's relatives. On holiday weekends he usually camps at a state park within twenty-five miles from home. He knows all the other campers will be out on holiday weekends also, so to beat the big rush and to avoid getting in the way of the campers coming in from a greater distance, he takes his trailer out to the park on Thursday.

Next you would probably like to know what a camping family does while on one of these outings. Well, back to old average Joe. The whole family, including the dog, drives out to the park to occupy their trailer. They have with them enough groceries to last a week. With the electric refrigerator in the trailer there is no problem keeping food cold. Soon after their arrival, Joe spots good old Charley down the way, and goes down to shake hands and brings him back to show the wife who he found. Now, Charley lives just down the block from them back home, but at home they never speak to each other. Next, the lawn chairs are set up under the nearest tree. By the time the camping area is full, the campers are all sitting outside so they can get a good laugh as other campers are turned away. Soon it's time to get the evening meal. It's the wife's vacation so Joe sets up the grill and puts on the hamburgers. If they ever quit selling hamburger most of the campers would starve to death. The family all brags about how good the hamburgers are. So nice and crunchy. Except the dog. He tries to bury his.

At night they invite the neighbors over to sit around the campfire so they can lie to each other, such as, *"I get nine miles to the gallon pulling my trailer."* Naturally, the other fellow gets ten miles to the gallon. Each one has the best trailer in the campgrounds. Then they end up talking about what their next one is going to be.

During the day Joe goes fishing for awhile, and the rest of the family sits around fighting bugs and just relaxing. By the time they are ready to head back home the wife has a sunburn, the little girl has poison ivy and the little boy has a frog hidden in the dirty clothes hamper. Joe says, *"We sure did have a good time."* I'll bet when that frog gets in the washing machine back home he will think he's on the "Screaming Eagle" at Six Flags.

If there are any campers who have read this far, I'll bet they are saying it's obvious that I have never had any experience camping. Wrong. Once I rented a homemade fold down camper and took my wife and two daughters on a long trip. While on this trip we drove through a rainstorm that would drown a fish. The daughters' clothes in the trailer got soaking wet. That made their eyes water. I blew out an odd sized tire on the trailer—no spare tire. That made my eyes water. After a few days without a bath I jumped into bed with my wife and covered up our heads. That made my wife's eyes water. And you say I haven't had experience!

WOODCOCK

(Continued from Page 9)

The sport of woodcock hunting did not become popular until the improvement of the firearm after the 1830's. During the mid-1800's Audubon described the spring migration of woodcocks along the Mississippi and Ohio Rivers: *". . . when almost every instant there whizzes past him a woodcock . . ."*. With the abundance of woodcocks in ruffed grouse areas, it is not hard to understand the popularity of the woodcock to the late 1800's market hunter. Both ruffed grouse and woodcocks found their way to the eastern markets; New York alone took nearly 2000 birds weekly as late as 1874.

The "timber doodle" was among the first game birds to receive legal protection in America with a law prohibiting the killing of the bird within the city of New York in the late 1700's; this law, however, was extremely limited.

The woodcock, holding well for a pointing dog, offers a challenging experience for the upland game hunter. The bird's sudden flush and erratic flight as it twists through willow and cottonwood trees creates a difficult target.

Normally a light load of 7½ shot is adequate for the heavy cover. A modified or improved barrel is also desirable as birds usually flush quite close to the hunter. Although the woodcock is edible, the meat has a stronger taste than other upland game birds.

A great amount of former nesting and migration habitat has been lost on the Missouri River bottoms due to drainage and clearing in the last 30 years. A number of state wildlife management areas can be found along the Missouri River which will insure the preservation of the remaining woodcock habitat in western Iowa. Look for woodcocks on public hunting areas lying adjacent to the Missouri River such as Tyson Bend, Deer Island, and Decatur Bend.

With the approach of another fall hunting season it is hoped that western Iowa sportsmen will sample this splendid game bird. The American woodcock has not been forgotten in western Iowa. For those who recognize the sporting qualities of this game bird, it has been "rediscovered."

BOATING SAFETY

(Continued from Page 11)

Cedar Rapids
January 17, 1977, 7 p.m.
Dubuque, January, 1978
Contact: Robert Riggle
1060 Hillville Drive
Marion, Iowa 52302
(319-377-4909)

Clinton
Course offered in early January
Contact: Karl Bromann
(319-243-7239)

Des Moines
Course offered in Des Moines,
September 15, 1977,
North High School
Contact: Larry Perkins
4008 14th St.
Des Moines, Iowa 50313
(515-284-1666)

Quad City
Course offered at Naval Reserve
Training Center,
September 26, 1977
Contact: Dr. Allan Hathaway
2503 Gaines
Davenport, Iowa 52804
(319-323-8649)